



Factors that determine the severity of *Betula* spp. pollen seasons in Poland (Poznan and Krakow) and the United Kingdom (Worcester and London)

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Abstract:

The aim of this paper is to analyse variations in the severity of *Betula* pollen seasons, particularly in relation to meteorological parameters at four sites, Poznan and Krakow in Poland, and Worcester and London in the United Kingdom. Results show that there is a significant relationship between *Betula* pollen season severity and weather conditions both in the year before pollination and in the same year that pollen is released from the plant. Furthermore, it is likely that the magnitude of birch pollen seasons in Poznan, Worcester and London is linked in some way to different phases of the North Atlantic Oscillation (NAO). Significant positive relationships exist between birch pollen counts at Poznan and temperatures, rainfall and averages of the NAO in the year before pollination. An opposite relationship is evident at the two sites studied in the United Kingdom. There were significant positive correlations between the severity of birch pollen seasons recorded at Worcester and temperatures and averages of the NAO during the winter and spring in the year of pollination, and negative correlations at both Worcester and London with similar variables from the previous year. In addition, *Betula* pollen seasons in Krakow do not appear to be influenced by the NAO, which is probably the result of Krakow having a more continental climate.

Source: <http://dx.doi.org/10.1007/s00484-007-0127-2>

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution

Air Pollution: Allergens

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Non-United States

Climate Change and Human Health Literature Portal

Non-United States: Europe

European Region/Country: European Country

Other European Country : Poland;United Kingdom

Health Impact: 

specification of health effect or disease related to climate change exposure

Respiratory Effect

Respiratory Effect: Upper Respiratory Allergy

Mitigation/Adaptation: 

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type: 

format or standard characteristic of resource

Research Article

Timescale: 

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: 

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content